What is claimed:

1. A continuous assay process for toxins on tobacco comprising the steps of:

(a) contacting tobacco with a first solvent;

(b) extracting the first solvent;

(c) assaying the extracted first solvent for toxin content;

(d) determining if the first solvent exceeds a predetermined level of toxin;

(e) if the assayed toxin content exceeds a predetermined level of toxin, contacting the tobacco with a second solvent;

(f) extracting the second solvent;

(g) assaying the extracted second solvent for toxin content;

(h) determining if the second solvent exceeds the predetermined level of toxin; and

(i) repeating steps (e) through (h) until said assayed toxin content does not exceed the predetermined level of toxin.

2. A continuous assay process as defined in claim 1 wherein:

the toxin is a fungal toxin.

3. A continuous assay process as defined in claim 2 wherein:

the toxin is a mycotoxin.

4. A continuous assay process as defined in claim 3 wherein:

the mycotoxin is an aflatoxin.

5. A continuous assay process as defined in claim 1 wherein:

the toxin is benzpyrene and its precursors.

6. A continuous assay process as defined in claim 1 wherein:

the toxin has a characteristic excitation-emission frequency when exposed to ultraviolet irradiation.

7. A continuous assay process as defined in claim 1 wherein said contacting step comprises the steps of:

contacting the tobacco with a solvent to form a solvent-product mixture; and

agitating the solvent-product mixture.

8. A continuous assay process as defined in claim 7 wherein:

the solvent is a tobacco processing solvent.

9. A continuous assay process as defined in claim 1 wherein:

said contacting step comprises the steps of:

contacting the tobacco with a solvent to form a solvent-product mixture; and

subjecting the solvent-product mixture to ultrasonic cavitation.

10. A continuous assay process as defined in claim 1 and further comprising:

remediating the extracted first solvent, following the step of assaying, to remove the toxin from the extracted solvent.

11. A continuous assay process as defined in claim 10 wherein said remediating step to remove toxin from the extracted solvent comprises:

a treatment selected from the group consisting of acidification, oxidation, reduction, peroxidation, ammoniation, addition of a base, dilution, microwave irradiation, nuclear irradiation, ozonation, ultraviolet irradiation, proton exchange membranization, heating, cooling, saponification, precipitation, condensation, chemical alteration and ultrasonic cavitation.

12. A continuous assay process as defined in claim 10 wherein:

said second solvent is said remediated first solvent.

13. A continuous assay process as defined in claim 10 wherein said remediating step to remove toxin from the extracted solvent comprises:

conveying extracted solvent to a toxin remediation system;

assaying the solvent for toxin content;

providing treatment reagent to said remediation system for remediating the toxin content; and

providing catalyst means in said remediation system for enhancing said remediation of the toxin content.

14. A continuous assay process as defined in claim 1 wherein said assaying step comprises:

a process selected from the group consisting of high pressure liquid chromatography, reversed phase liquid

chromatography, thin layer chromatography, adsorption chromatography, immunoaffinity chromatography, ELISA, fluorescent immunoassay, gas chromatography, mass spectroscopy, infrared spectroscopy, raman spectroscopy, packed cell fluorescent spectroscopy, bio-luminescence, chemical luminescence, radioimmunoassay, polymerase chain reaction, electron capture decay, supercritical fluid extraction, and any combination thereof.

15. A continuous assay process as defined in claim 1 wherein said assaying step comprises:

the step of passing said extracted first solvent through a column to remove non-toxin content from said extracted first solvent.

16. A continuous assay process as defined in claim 1 wherein said assaying step comprises:

providing a continuously moving carrier means having toxin specific antibodies;

conveying extracted solvent to the assaying means and contacting the solvent with said toxin specific antibodies;

illuminating said toxin specific antibodies with ultraviolet light after contacting with the solvent;

detecting fluorescence emitted from said toxin specific antibodies illuminated by said ultraviolet light means indicative of toxin content; and

determining toxin content in the solvent.

17. A continuous assay process as defined in claim 1 wherein:

said predetermined toxin level is less than 300 parts per billion.

18. A continuous assay process as defined in claim 1 wherein:

said predetermined toxin level is less than 20 parts per billion.

19. A continuous assay process as defined in claim 1 wherein:

said predetermined toxin level is less than 0.5 parts per billion.

20. A continuous assay process as defined in claim 1 and further comprising the step of:

treating the tobacco, after said toxin content does not exceed said predetermined toxin level, to prevent reformation of toxin on the tobacco.

21. A continuous assay process as defined in claim 20 wherein said treating step to prevent reformation includes:

treating the tobacco with ammonia (NH_3).

22. A continuous assay process as defined in claim 1 and further comprising the steps of:

exposing said tobacco to ultraviolet light;

detecting fluorescence emitted from the tobacco indicative of toxin content; and

separating tobacco from which said fluorescence is detected from the tobacco without said fluorescence.

23. A continuous assay process as defined in claim 22 wherein:

said ultraviolet light has a frequency in the range of about 248 to about 378 nanometers.

24. A continuous assay process as defined in claim 22 wherein:

said fluorescence has a frequency in the range of about 365 to about 498 nanometers.

25. A continuous assay process as defined in claim 1 and further comprising the steps of:

heating said tobacco;

collecting and analyzing vapors emitted from said heated tobacco to determine the toxin content in said tobacco; and

separating tobacco that has a toxin content greater than 300 parts per billion from tobacco that has a toxin content less than 300 parts per billion.

26. A continuous assay process as defined in claim 1 and further comprising the step of:

treating said tobacco to inhibit production of toxins.

27. A continuous assay process as defined in claim 26 wherein:

said treating step to inhibit toxin production is done prior to contacting the tobacco with a first solvent.

28. A continuous assay process as defined in claim 26 wherein said treating step to inhibit toxin production comprises:

a treatment selected from the group consisting of providing an inert gas environment, injecting non-toxigenic fungal spores to inhibit toxin production, and irradiating the tobacco to sterilize the tobacco.

29. A continuous assay process as defined in claim 28 wherein:

said inert gas is nitrogen.

30. A continuous assay process as defined in claim 26 wherein said treating step to inhibit toxin production comprises:

storing tobacco for toxin inhibition treatment;

storing fungal spores of a non-toxigenic species; and

injecting said fungal spores into said stored tobacco for inhibiting production of toxins in tobacco by said non-toxigenic fungal spores.

31. A continuous assay process as defined in claim 1 and further comprising the steps of:

adding additives to the tobacco; and

assaying the additives added to the tobacco for toxin content prior to addition to the tobacco.

32. A continuous assay process as defined in claim 1 wherein:

the tobacco is in-process tobacco for production of cigarettes.

33. A toxin production inhibition system for inhibiting production of toxins in tobacco, said system comprising:

storage means for storing tobacco;

storage means for storing fungal spores,

said fungal spores being a non-toxigenic species; and

means for injecting said fungal spores into said tobacco storing means for inhibiting production of toxins in tobacco by said non-toxigenic fungal spores.

34. A toxin production inhibition system as defined in claim 33 wherein said product storing means comprises:

a curing barn; and

said tobacco is in-process tobacco for production of cigarettes.

35. A toxin production inhibition system as defined in claim 33 wherein:

said toxin is a mycotoxin.

36. A toxin production inhibition system as defined in claim 35 wherein:

said mycotoxin is an aflatoxin.

37. A toxin production inhibition system as defined in claim 33 wherein said fungal spores storage means comprises:

a cartridge having said non-toxigenic spores prepackaged therein.

38. A toxin production inhibition system as defined in claim 33 wherein said injecting means comprises:

means for blowing said fungal spores into and through said product storing means for mixing with the tobacco; and

moisture means for aerosolizing the fungal spores.

39. A toxin detection system for detecting toxin contamination in tobacco and separating toxin contaminated tobacco, the system comprising:

means for retaining tobacco for toxin contamination detection;

means for discharging toxin contaminated tobacco from said retaining means;

ultraviolet light means for illuminating the tobacco retained by said retaining means;

detector means for detecting fluorescence emitted from the tobacco illuminated by said ultraviolet light means indicative of toxin content; and

means for controlling said discharging means such that the tobacco is retained by said retaining means when no fluorescence is detected and the tobacco is discharged from said retaining means when fluorescence indicative of toxin is detected.

40. A toxin detection system as defined in claim 39 wherein:

the controlling means for controlling said discharging means is a computer.

41. A toxin detection system as defined in claim 39 wherein:

said ultraviolet light means illuminates the tobacco with a frequency in the range of about 248 to about 378 nanometers; and

said detector means detects fluorescence emitted from the tobacco with a frequency in the range of about 365 to about 498 nanometers.

42. A toxin detection system as defined in claim 39 wherein:

the tobacco is in-process tobacco for production of at least one of cigarettes, cigars, or chewing tobacco.

43. A toxin detection system as defined in claim 39 wherein said retaining means and discharging means comprise:

means for conveying the tobacco; and

pneumatic means for retaining the tobacco on said means for conveying and for discharging the tobacco from said means for conveying.

44. A toxin detection system as defined in claim 43 wherein:

said means for conveying is an optically transparent conveyor system such that ultraviolet light from said ultraviolet light means is transmitted through said means for conveying to illuminate the tobacco.

45. A toxin detection system as defined in claim 39 wherein said retaining means comprises:

an optically transparent chamber having,

channel means for retaining the tobacco; and

said discharging means comprises:

openings provided in said channel means for discharge of contaminated tobacco.

46. A toxin detection system as defined in claim 45 further comprising:

fiber-optic means for transmitting ultraviolet light from said ultraviolet light means for illuminating the tobacco and for receiving fluorescence emitted from the tobacco for detection by said detector means.

47. A toxin remediation system for remediating toxin contamination in tobacco processing solvent, the system comprising:

conveying means for conveying toxin contaminated solvent to the toxin remediation system;

assaying means for assaying the toxin contaminated solvent for toxin content;

treatment chamber for treating the toxin contaminated solvent to remediate the toxin content;

inlet means for providing treatment reagent to said treatment chamber for remediating the toxin content; and

catalyst means in said treatment chamber for enhancing said remediation of the toxin content.

48. A toxin remediation system as defined in claim 47 further comprising:

an ultrasonic cavitator to promote remediation of the toxin content.

49. A toxin remediation system as defined in claim 48 wherein said catalyst means comprises:

neutrally buoyant palladium coated spheres;

said palladium being coated in the range of about 0.001 to about 3.0 percent by weight; and

said spheres having diameters in the range of about 30 to about 100 nanometers.

50. A toxin remediation system as defined in claim 47 further comprising:

an ultraviolet light source for providing biocidal treatment of the solvent.

51. A toxin remediation system as defined in claim 47 further comprising:

a second assaying means for assaying the solvent for toxin content after treatment in said treatment chamber.

52. A toxin remediation and assaying system as defined in claim 47 wherein said assaying means comprises:

continuously moving carrier means having toxin specific antibodies;

conveying means for conveying solvent to the assaying means and for contacting the solvent with said toxin specific antibodies;

ultraviolet light means for illuminating said toxin specific antibodies after contact with the solvent;

detector means for detecting fluorescence emitted from said toxin specific antibodies illuminated by said ultraviolet light means indicative of toxin content; and

computer means for determining toxin content in the solvent.

53. A toxin remediation and assaying system as defined in claim 52 wherein said ultraviolet light means for illuminating comprises:

laser means for producing ultraviolet light.

54. A toxin remediation and assaying system as defined in claim 53 wherein said laser means for producing ultraviolet light comprises:

a laser diode.

55. A toxin remediation and assaying system as defined in claim 52 wherein said continuously moving carrier means comprises:

a continuous substrate having said toxin specific antibodies provided on a surface of said substrate and extending longitudinally along the continuously moving substrate;

and said system further comprises:

means for attaching fluorescent probes to said toxin specific antibodies after contact with the solvent.

56. A toxin remediation and assaying system as defined in claim 55 wherein:

said continuous substrate is an optically transparent, plastic substrate having a plurality of slots formed therein extending longitudinally along an edge of said substrate.

57. A toxin remediation and assaying system as defined in claim 52 wherein said continuously moving carrier means comprises:

a plurality of continuously moving cuvettes;

said toxin-specific antibodies comprise:

a plurality of beads having said toxin-specific antibodies coated on said beads;

said beads being contained in said continuously moving cuvettes;

and said system further comprises:

means for attaching fluorescent probes to said toxin specific antibodies after contact with the solvent being assayed.

58. A toxin remediation and assaying system as defined in claim 52 further comprising:

fiber-optic means for transmitting ultraviolet light from said ultraviolet light means for illuminating the toxin specific antibodies and for receiving fluorescence emitted from the toxin specific antibodies for detection by said detector means.

59. A toxin remediation and assaying system as defined in claim 47 wherein:

the toxin contaminated solvent is derived from processing of tobacco for production of at least one of cigarettes, cigars, or chewing tobacco.